

**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK**

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|------------------------------------|---|------------------------|
| | X | 08 Civ. No 7508 (SAS) |
| ABU DHABI COMMERCIAL BANK, et al., | : | |
| | : | <u>ECF Case</u> |
| Plaintiffs, | : | |
| | : | |
| vs. | : | |
| | : | |
| MORGAN STANLEY & CO. Inc., et al., | : | |
| | : | |
| Defendants. | : | |
| | X | |

**REBUTTAL REPORT OF
MICHAEL A. GOLDSTEIN, Ph.D.**

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I. INTRODUCTION

1. I am a Professor of Finance at Babson College where I hold the Donald P. Babson Chair in Applied Investments and currently serve as Chair of the Finance Department. I previously submitted expert testimony on behalf of Plaintiffs in this matter on September 17, 2012 (henceforth “my report”).
2. A detailed summary of my qualifications and a list of my prior testimonies in other matters were provided as attachments to my original report. There have been no substantive changes to either category since that time.
3. In accordance with recognized professional ethics, my professional fees for this service continue to be independent of the opinions expressed herein, and my services in this matter continue to be compensated at the rate of \$750 per hour. Others working under my direction are being compensated at hourly rates in the range of \$210 to \$550. I continue to have no present or intended financial interest in the outcome of this matter.
4. The documents I relied upon in forming my current opinion include all documents I relied upon in writing my previous report. Any additional documents I relied upon are referenced within the body of this report.

II. CURRENT ASSIGNMENT AND SUMMARY OF FINDINGS

5. As set forth in my report, I previously performed an analysis which established that “the losses suffered by Plaintiffs were a direct and foreseeable result of the alleged misrepresentations.”¹ I have been asked by counsel for Plaintiffs² to review the expert report of Professor Steven Grenadier dated October 17, 2012 (the “Grenadier report”), and to evaluate and respond to its conclusions.
6. After a careful review of the Grenadier report and its supporting materials, I find that it focuses on misguided and generally minor issues. As such, the Grenadier report is best characterized as “missing the forest for the trees,” both in its implicit

¹ See my report at par. 17(d).

² The Plaintiffs were listed in Table 6, Summary of Damages by Plaintiff, at the end of my report.

position and in its various misguided criticisms of my analyses. The Grenadier report provides no new or notable explanation for Plaintiffs' loss. As such, my opinions remain unchanged.

7. With respect to the Grenadier report, I specifically find that:³
- i. The Grenadier report provides no plausible specific alternative explanation for the chain of events that ultimately led to Plaintiffs' losses. Instead, the Grenadier report treats the deterioration of the subprime market as an event that simply fell out of the sky and took down the Cheyne SIV, but does not specify what the event was or demonstrate its cause.
 - ii. The Grenadier report presents a misleading argument concerning the foreseeability of Plaintiffs' losses. Specifically, the Grenadier report argues that one could not have predicted the "market-wide event" that it asserts caused Plaintiffs' losses. However, the relevant question for loss-causation under a materialization of risk standard is not predictability of the precise risky event itself. In this case, the relevant question is if one could reasonably predict that concealment of inferior credit quality – through the alleged misrepresentations and misratings – could lead to losses for Plaintiffs. The answer to that is clearly yes. Additionally, there are flaws in the Grenadier report's arguments that events leading to Plaintiffs' losses were not foreseeable. For example, despite many years of publicly available data,⁴ the Grenadier report only uses a very restricted ten-year history to suggest that TED spreads were outside of historical norms as the subprime crisis unfolded. A simple extension of the history from ten to twenty years indicates that this is not correct, and reveals that spreads had actually been higher during the October crash of 1987. Credit ratings make a statement about the ability of securities to withstand stresses against a range of events – many of which may be highly unlikely. The Grenadier report instead treats foreseeability as though it were the same as predictability.
 - iii. The only explanation offered by the Grenadier report is an incorrect and misleading attack on the model estimates in my report. The Grenadier report, for example, fails to recognize that there is only one event study in my report, not two – a miscomprehension that leads the Grenadier report to make various misplaced and misleading criticisms of my conclusions. The

³ I provide citations to these statements later in the body of this report.

⁴ E.g., the Federal Reserve Bank of St. Louis database and website.

Grenadier report also improperly relies on efficiency of the HEL RMBS marks – yet these marks clearly cannot be efficient nor did I assume they were in my report. My report’s conclusions at no point require efficiency of the HEL RMBS marks.

- iv. Additionally, the Grenadier report makes several mistakes in interpreting my report’s results. For example, it mistakenly suggests that the presence of two negative coefficients in the quadratic model of HEL RMBS returns automatically implies a model where a fall in the ABX predicts an increase in HEL RMBS⁵ – apparently contradicting the conclusions of my report. A simple plot of the estimated function demonstrates the error of such a statement. Similarly, the Grenadier report inappropriately suggests that “outliers” (actually two data points surrounding key events) are responsible for the observed relationship between Cheyne SIV’s subprime RMBS portfolio and the ABX AA:0601 index. In doing so, the Grenadier report ignores the ability of the ABX to explain the overall behavior of the marks on the Cheyne SIV’s portfolio – especially post-July 10, 2007 – as the misrepresentation of the incorrect ratings and rating methodology was initially revealed.
- v. The Grenadier report incorrectly asserts that my analyses fail to establish a causal link between the alleged misrating on the Cheyne SIV notes and Plaintiffs’ losses. My report first documents a direct causal link between the revelation of the alleged misrepresentations and deterioration of Cheyne’s subprime assets that led Cheyne into Enforcement. The alleged misrepresentations surrounding the quality of Cheyne’s notes made them vulnerable to the Enforcement event. As a result, Cheyne SIV entered a receivership process that led to the ultimate losses suffered by Plaintiffs.
- vi. The Grenadier report’s criticisms of my damage estimates are ill-founded and its alternative calculations make several basic errors. In particular, the “but-for” standard used by the Grenadier report is inappropriate and, contrary to his claim, is not an approach I employ in my damage estimates. Further, under the assumptions accepted by my report, the Grenadier report is fundamentally wrong to suggest that an appropriate alternative to holding Cheyne SIV’s A1/P1-rated Commercial Paper, AAA-rated Medium Term Notes and A-rated Mezzanine Capital Notes is a basket of subprime RMBS. Under the maintained assumptions of my report, Defendants (ratings agencies) misrepresented the credit quality of subprime RMBS and, more importantly, the quality of Cheyne

⁵ E.g., see the Grenadier report at par. 31.

SIV's notes. Thus, all baskets of subprime RMBS are contaminated by the alleged actions of Defendants and are simply inappropriate for estimating out-of-pocket damages from holding the misrated Cheyne SIV's notes.

8. My rebuttal report does not address all of the problems or issues I noticed in my review of the Grenadier report. Rather, I focus my discussion on several of the key issues that make the Grenadier Report fundamentally flawed as a matter of finance and economics.

III. SIGNIFICANT PROBLEMS WITH THE GRENADIER REPORT

A. THE GRENADIER REPORT'S IMPLAUSIBLE EXPLANATION OF LOSS

9. The Grenadier report suggests that there is essentially no explanation for Plaintiffs' losses, beyond an implicit "unfortunately-it-just-happened" explanation. Moreover, through its omissions the Grenadier report inexplicably suggests that the rating agencies' own statements on July 10, 2007 – downgrading or placing on watch negative over a thousand subprime RMBS assets and changing rating models – had *no* effect on the subprime market. Such conclusions are implausible given the weight of evidence.
10. Specifically, the Grenadier report argues that the collapse of Cheyne SIV and subsequent losses were due to a vaguely described "market-wide event," but is conspicuously silent on how it believes this vague event originated or even how the "market" is defined. In addition, the Grenadier report, by not addressing the revelation of the ratings methodology errors, assumes this undescribed event is unrelated to the revelation of the ratings errors. Doing so, the report implicitly leaves the reader with the impression that it believes this "event" must have been the consequence of some mysterious "black-box" process that dictates market currents – something that apparently just happens from time to time in financial markets like a random force of nature. However, the events leading to Cheyne's collapse did not happen in a vacuum. Instead, as my analysis established, the price declines on subprime assets that drove the Cheyne SIV into Enforcement occurred when the market began to realize that the ratings on subprime assets were not reflective of their true credit quality. These price declines were caused by a

realization that credit quality was materially lower than had been represented and a materialization of the credit risks that had been concealed.

11. It is clear, for example, that the Grenadier report's "market-wide event" did not extend to U.S. Treasury Bonds, which were steady or increasing in this period (see Figure 1).

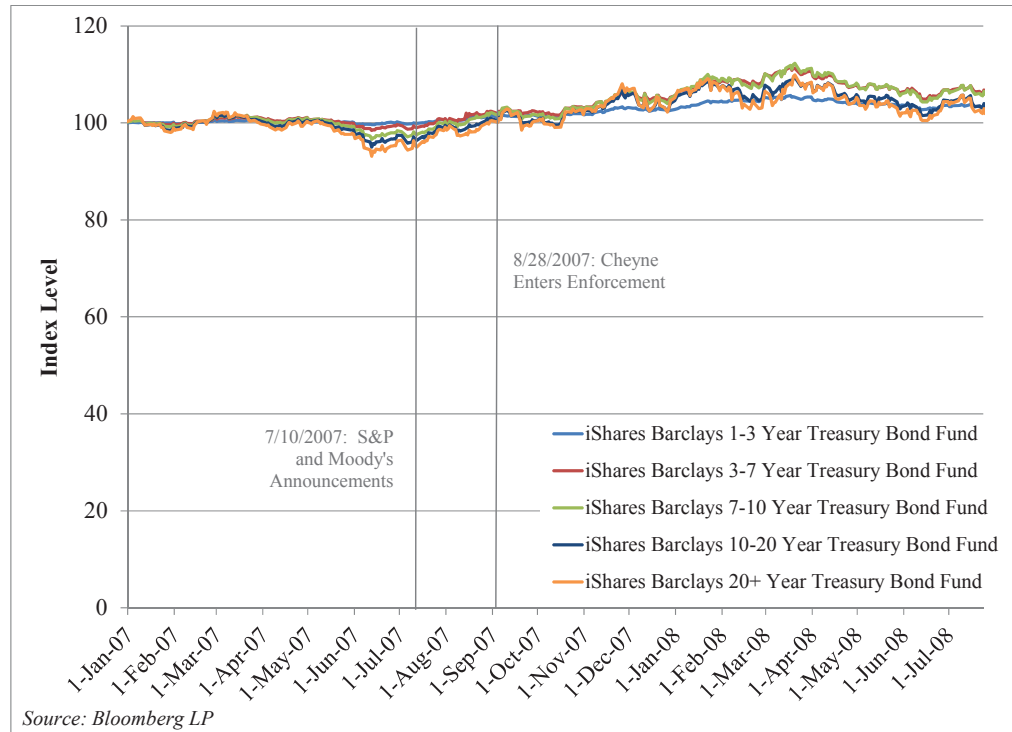


Figure 1. The performance of Barclays' U.S. Treasury Bond indices for various maturities at the time of the ratings announcements and downgrades

12. Agency bonds with exposure to residential real estate also remained healthy during this period and beyond, as evidenced by the Credit Suisse indices for Fannie Mae, Freddie Mac, and Federal Home Loan bonds in Figure 2 below.

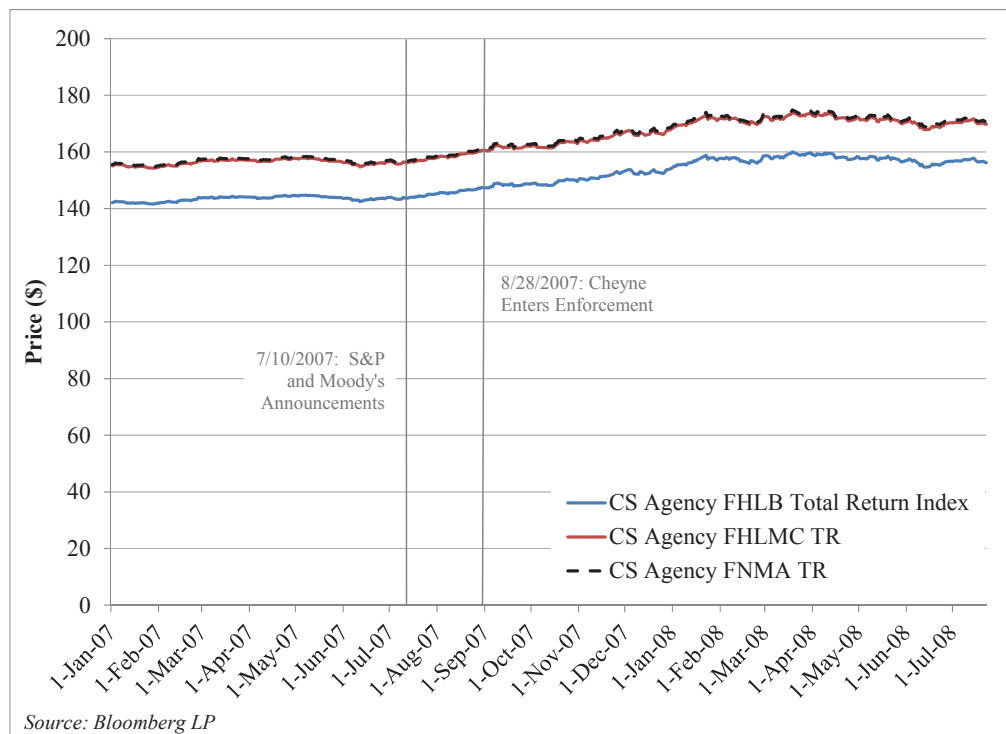


Figure 2. Credit Suisse Agency bond indices and Federal Home Loan Bond index

13. Even corporate bonds experienced no major, prolonged problems. As Figure 3 demonstrates, even non-investment grade corporate bonds (e.g., BB-rated) retained value.

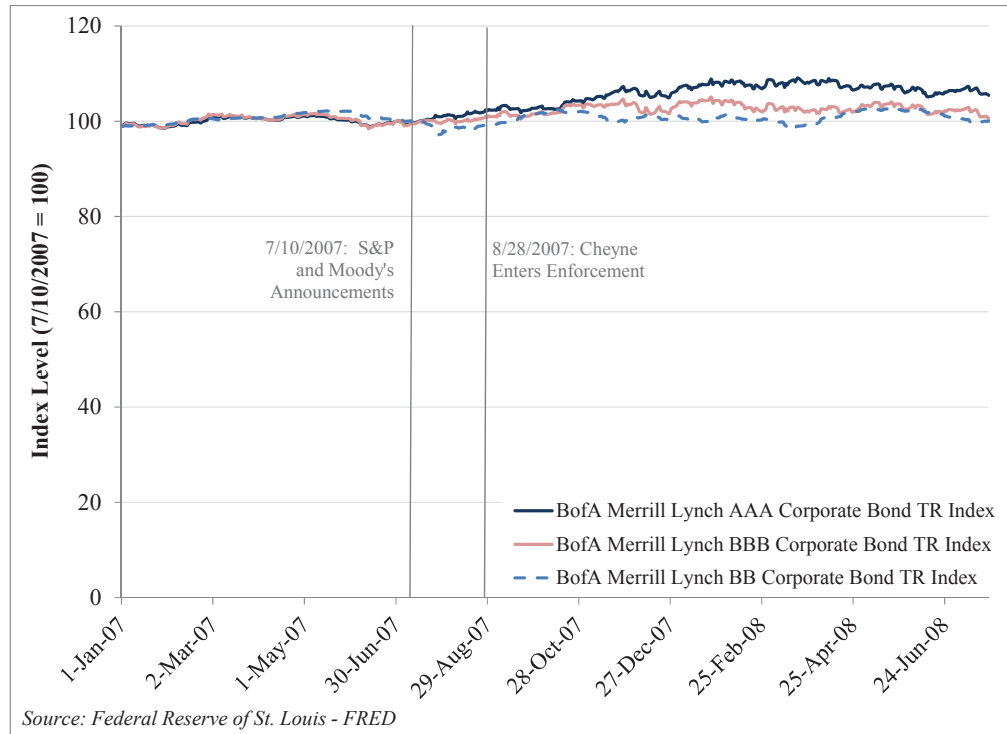


Figure 3. The performance of AAA, BBB, and BB rated corporate bonds measured by the Bank of America Merrill Lynch indices

14. Therefore, the so-called “market-wide event” from the Grenadier report was narrower than that report suggests. The Grenadier report also fails to clarify why the so-called “market-wide event” would break the causal link established in my report – that the Defendant rating agencies’ misrepresentations across the Cheyne SIV’s notes and across subprime RMBS ratings (Cheyne’s assets included) concealed their true credit quality and value, and it was revelation of this fact that directly caused Plaintiffs’ losses. The Grenadier report also presents no analyses to support the position taken in the Grenadier report.
15. The Grenadier report relies on the false argument that by simply attributing the “cause” of collapse to a “market-wide event,” it automatically disqualifies the possibility that Defendants’ actions could have been causal. However, this is clearly misleading. As noted above, there are many “markets” and they performed differently at this time. Since the Grenadier report does not specify what market is being described, its assertions about “market-wide events” are insufficient to break the causal connection established in my report.

16. As discussed in my report, inflated subprime ratings caused a problem across the *entire* subprime RMBS market – one that directly cascaded to proximate markets in a causal manner. The degree to which wider markets experienced an “event” at all, in fact, appears to be directly determined by their proximity to subprime RMBS whose true credit quality was allegedly concealed by Defendants’ misrepresentations in these proceedings. That is, it is qualitatively evident that the assumed misratings are at the root of the Grenadier report’s vaguely defined “market-wide event,” which clearly suggests a causal link between the two.
17. This qualitative link was further quantified by the causality analyses of my report, summarized in Figure 4 below.

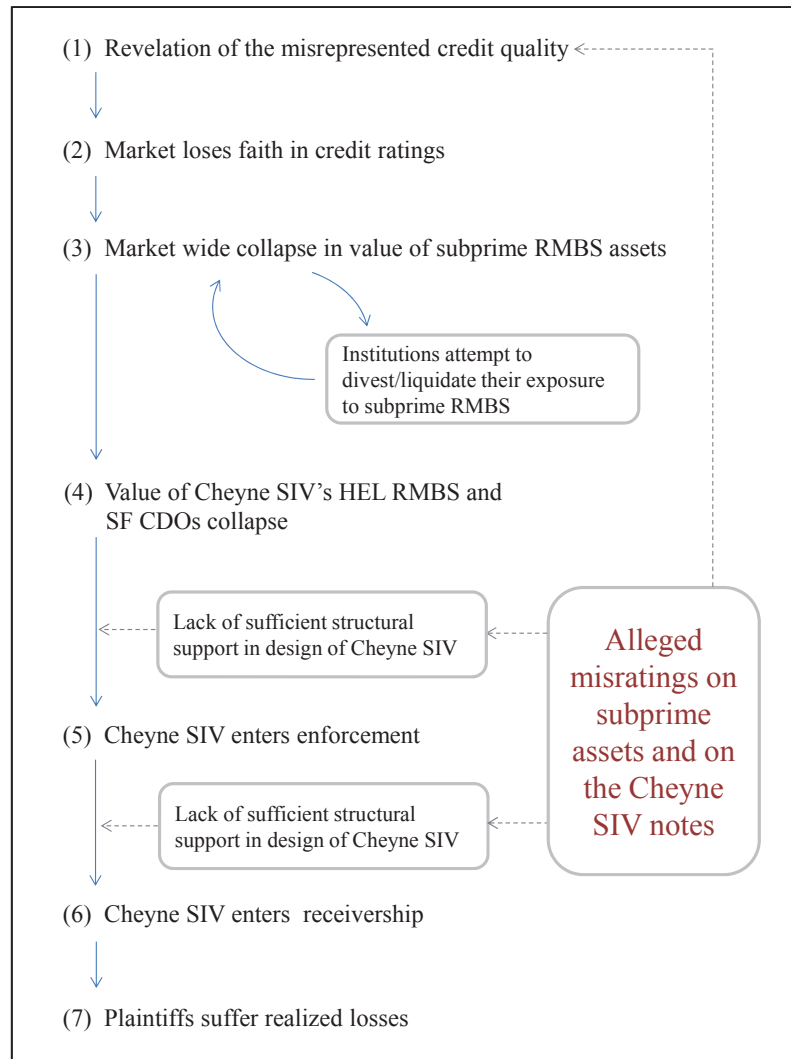


Figure 4. Chain of causality established in my report

18. With the help of event study methodology (the first regression in my report at par. 76),⁶ it was established that the Defendant rating agencies' announcements on July 10th and 11th directly caused a loss of confidence in the ratings of securities backed by subprime mortgages. Specifically, the event study in my report provided quantitative evidence that the announcements caused a structural change or fracture across the ABX family of subprime indices.⁷ As noted in my report, these indices measure changes in the market's perception of default risk on a specific bundle of subprime RMBS, and were the only highly liquid and transparent barometer of the subprime market in 2007.⁸
19. However, none of the underlying assets in the ABX indices were specifically downgraded or put on negative watch in the July 10th and 11th announcements (see the columns for 2006 and 2007 in Table 1 below). This fact is revealing when combined with the behavior of the ABX presented in Figure 13 of my report (and Figure 5 below), and the additional data on housing prices and delinquency rates presented in Section 5.B and Figure 11 of my report. Specifically, the data suggest that prior to the announcements, the market's perceived probabilities of default for AA-rated subprime RMBS – as revealed by the ABX AA:0601 index – was tied to the AA-rating; ABX index prices remained steady despite flattening housing prices and increasing delinquency rates in the underlying subprime assets. After the announcements, probabilities of default start rising sharply on the ABX underlying subprime assets, despite the fact that none of these assets were downgraded.

⁶ Note, the Grenadier report mischaracterizes my analyses as containing two event studies. As I discuss further below, my report was clear that only the first regression (being discussed) is an event study. The second regression I performed on HEL RMBS against other factors, including the ABX, is not an event study and was not treated as such in deriving my conclusions.

⁷ See my report at par. 74-77.

⁸ See my report at par. 44.

Table 1. History of S&P credit ratings for underlying ABS in the ABX AA:0601 index (source: Bloomberg LP)

| Index | Ticker | 12/31/2005 | 12/31/2006 | 12/31/2007 | 12/31/2008 | 12/31/2009 |
|----------------|-------------------------|------------|------------|------------|------------|------------|
| ABX.HE.AA.06-1 | ACE 2005-HE7 M2 Mtge | AA+ | AA+ | AA+ | A | CCC |
| ABX.HE.AA.06-1 | ARSI 2005-W2 M2 Mtge | AA+ | AA+ | AA+ | AA+ | B- |
| ABX.HE.AA.06-1 | AMSI 2005-R11 M2 Mtge | AA | AA | AA | AA | AA |
| ABX.HE.AA.06-1 | BSABS 2005-HE11 M2 Mtge | AA | AA | AA | AA | AA |
| ABX.HE.AA.06-1 | CWL 2005-BC5 M2 Mtge | AA | AA | AA | AA | B |
| ABX.HE.AA.06-1 | FFML 2005-FF12 M2 Mtge | AA+ | AA+ | AA+ | A | B- |
| ABX.HE.AA.06-1 | GSAMP 2005-HE4 M2 Mtge | BBB+ | BBB+ | BBB+ | CCC | CC |
| ABX.HE.AA.06-1 | HEAT 2005-8 M2 Mtge | AA+ | AA+ | AA+ | A | BB- |
| ABX.HE.AA.06-1 | JPMAC 2005-OPT1 M2 Mtge | n/a | n/a | n/a | n/a | n/a |
| ABX.HE.AA.06-1 | LBMLT 2005-WL2 M2 Mtge | AA | AA | AA | AA | BB |
| ABX.HE.AA.06-1 | MABS 2005-NC2 M2 Mtge | AA+ | AA+ | AA+ | BBB | CC |
| ABX.HE.AA.06-1 | MLMI 2005-AR1 M1 Mtge | AA+ | AA+ | AA+ | AA+ | BB- |
| ABX.HE.AA.06-1 | MSAC 2005-HE5 M2 Mtge | AA+ | AA+ | AA+ | AA+ | AA+ |
| ABX.HE.AA.06-1 | NCHET 2005-4 M2 Mtge | AA | AA | AA | AA | AA |
| ABX.HE.AA.06-1 | RAMP 2005-EFC4 M2 Mtge | AA+ | AA+ | AA+ | AA+ | AA+ |
| ABX.HE.AA.06-1 | RASC 2005-KS11 M2 Mtge | AA+ | AA+ | AA+ | BB | B- |
| ABX.HE.AA.06-1 | SABR 2005-HE1 M1 Mtge | AA+ | AA+ | AA+ | AA | CCC |
| ABX.HE.AA.06-1 | SVHE 2005-4 M2 Mtge | AA | AA | AA | A | B |
| ABX.HE.AA.06-1 | SAIL 2005-HE3 M2 Mtge | AA | AA | AA | AA | CCC |
| ABX.HE.AA.06-1 | SASC 2005-WF4 M2 Mtge | AA | AA | AA | AA | AA |

20. This additional fact implies that the announcements caused the market's loss of confidence in the ratings of subprime RMBS, whether or not those specific subprime RMBS securities had been downgraded. After the announcements of the downgrades and change in methodology in certain RMBS securities, value started plunging even on other RMBS securities which were not downgraded and which maintained their AAA, AA, and A ratings at the time. A security's price typically moves when a negative watch or unexpected downgrade occurs.⁹ In this instance, the ABX reveals that prices started moving on securities due to the mass downgrades on *other* subprime assets.^{10,11} Collectively, the evidence therefore

⁹ See, for example, discussion in Hull, J., Predescu, M., & White, A. (2004). The relationship between credit default swap spreads, bond yields, and credit rating announcements. *Journal of Banking & Finance*, 28(11), 2789-2811.

¹⁰ Part of this is likely explained by the S&P July 10th announcement of a change of methodology (see my report at par. 74-77).

¹¹ Indeed, my analyses established that prior to July 10, 2007, prices on the securities in the ABX index and HEL RMBS and SF CDOs held by Cheyne were consistent with their ratings (see my report at par. 74-77). Following the July 10th and 11th announcements, this consistency was severed and the marks started collapsing.

strongly suggests that a loss of confidence in the ratings across the board triggered wider ranging collapses in the value of subprime RMBS and related assets.

21. The second regression in my report (i.e., HEL RMBS on ABX and other factors at par. 78-86 of my report) established that the collapse in the marks of Cheyne SIV's HEL RMBS holdings post-July 10th is largely explained by this loss of confidence. That is, using the ABX as a proxy measure for the market-wide loss of confidence (and inferred jump in probabilities of default), the second regression showed that returns on Cheyne SIV's HEL RMBS portfolio after July 10th could be well explained by the movements in the ABX AA:0601 index.
22. Together with the maintained assumptions, the two regressions in my report therefore established a causal link between the revelation of the Defendants' misrepresentations and the collapse in value of Cheyne SIV's HEL RMBS portfolio. This collapse in value then led to enforcement and – because the structure of Cheyne SIV was compromised due to the assumed misrepresentations¹² – ultimately led to liquidation of Cheyne SIV's assets at a loss to Plaintiffs.
23. The Grenadier report ignores this collective evidence and concentrates instead on generally incorrect arguments that are highly limited in scope. In the context of Figure 4 of this report, the Grenadier report's apparent theory of how events unfolded in July through September 2007 ignores steps 1 and 2 and starts at step 3 – with subprime RMBS assets just losing value for no evident reason and falling into a feedback loop that eventually led to Plaintiffs' losses at step 7. The Grenadier report's analysis simply ignores or entirely discounts the role of steps 1 and 2 in the sequence of events and offers no explanation as to why subprime RMBS securities suddenly diverged from their ratings following the July 10, 2007 announcements. The Grenadier report also provides no explanation for its hypothesis that the change in ratings on similar securities had no effect on the market, or that an announcement suggesting the rating agencies were changing their methodology on how all subprime RMBS securities should be rated had no effect on the market at all.

¹² See Section IV.B below for additional discussion.

24. Even recognizing the Grenadier report's misinterpretations of my quantitative analyses, it is hard to understand the Grenadier report's apparent dismissal and lack of discussion of the evidence provided by the ABX indices at that time (Figure 13 of my report, replicated below for convenience).

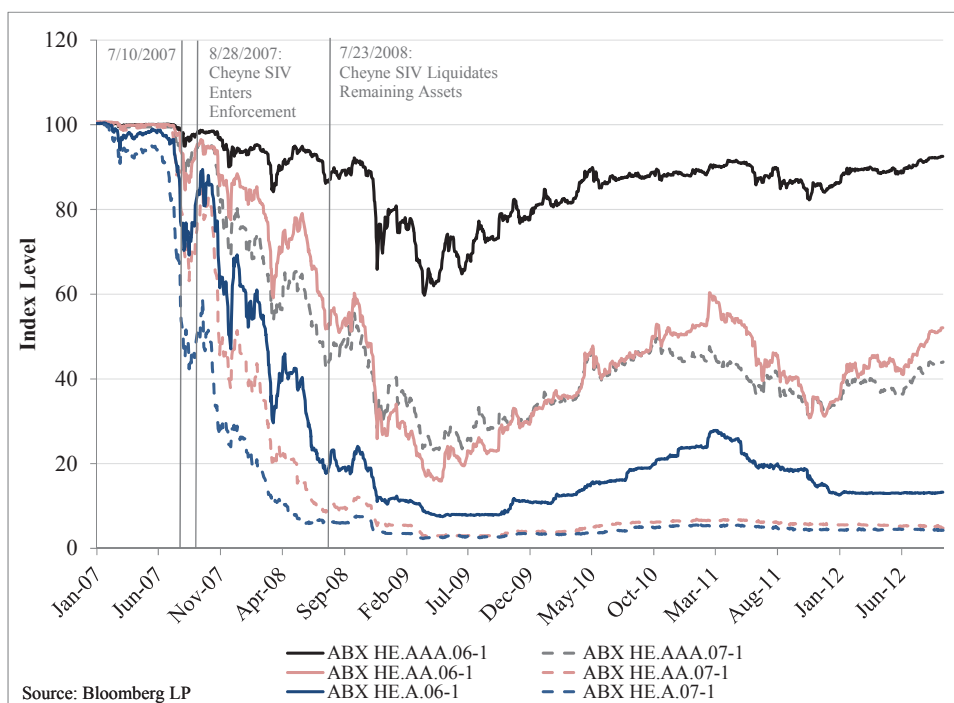


Figure 5. ABX:HE Index from March 1, 2006 through July 9, 2007 reflects CDS on HEL RMBS. Fall denotes increased perceived probability of default. (Replicated from Figure 13 in my report.)

25. It is simply unconvincing to assume without support, as does the Grenadier report, that there is no proximate causal link between the misratings and the ultimate losses – especially given the weight of evidence and the assumed facts that the securities were all misrated, concealing their true vulnerabilities and credit quality. The suggestion that there is no proximate link between the misratings and losses is particularly not credible when no competing explanation is offered by the Grenadier report for how the sudden loss in values occurred.
26. As established in my report, the chain of events places the Defendants' misrepresentations at the causal root of those losses. The Grenadier report offers no economic evidence to the contrary. Indeed, the Grenadier report's reasoning and support for its position is pointedly not affirmative. Instead, it is comprised entirely

of a series of misunderstandings and mischaracterizations of the assumptions, analyses, and conclusions contained in my report. The Grenadier report also mischaracterizes what the data itself suggests and does not suggest, and it fails to explain why, under its theory of loss causation, the value of Cheyne's subprime assets were still significantly impaired at auction and continue to be depressed to this day.¹³

B. THE GRENADIER REPORT'S MISGUIDED FORESEEABILITY ARGUMENTS

27. In addition to its implausible "explanation" for the deterioration of Cheyne SIV's subprime RMBS, the Grenadier report argues that events causing Plaintiffs' losses were not foreseeable, and thereby implies that the Defendants' misrepresentations cannot be causal.
28. As noted earlier, the correct foreseeability question is not that one could not have predicted the "market-wide event" that the Grenadier report asserts caused Plaintiffs' losses. Instead, the relevant question for loss causation under a materialization of risk standard is if one could reasonably predict that concealment of inferior credit quality – through the alleged misrepresentations and misratings – could lead to losses for Plaintiffs. The answer to that is clearly yes.
29. The Grenadier report misses the larger story by missing the role of the ratings and what they are meant to represent. The credit ratings are specifically intended to make a statement about the ability of securities to withstand stresses against a range of events – many of which may be highly unlikely. For example, the AAA rating suggests an ability to weather a Great Depression event.¹⁴ While a recurrence of that event is generally viewed as unlikely, the rating makes a statement about sustaining such shocks nevertheless.

¹³ See my report at par. 89-90.

¹⁴ E.g., see *Investing in Asset-Backed Securities*, edited by Frank J. Fabozzi, published by Frank J. Fabozzi Associates, 2001, page 344; or Exhibit 689 at MDYS ADCB 9365924, "The Desired Meaning of Triple-A," February 12, 2008.

30. In the case of SIVs, the ratings on their notes should have reflected all of the features of the SIV that would ensure it could weather such unlikely events – including having sufficient capital buffers to allow the SIV to liquidate its position over time so as to return noteholder capital. Those buffers, in turn, would have been at least in part determined by the ratings on the underlying SIV assets. To suggest that the events that occurred in 2007 were outside the scope of what the ratings were meant to capture, as is done in the Grenadier report, is incorrect and misleading.¹⁵
31. Moreover, even if one wished to focus on the specific events of 2007, the Grenadier report again fails to connect the event that it claims was unforeseeable with the alleged misrepresentations of Defendants in these proceedings. The events around the crisis in 2007 discussed in the Grenadier report were not historically inconceivable. For example, the TED spreads identified in the Grenadier report were not astronomically out of line with prior historic events – a fact evidenced by Exhibit 11 in the Grenadier report itself (see also Figure 6 below). Indeed, as shown in the figure, these spreads were higher at the time of the 1987 October crash, which occurred a mere two decades earlier.

¹⁵ See, for example, the Grenadier report at par. 65-71.

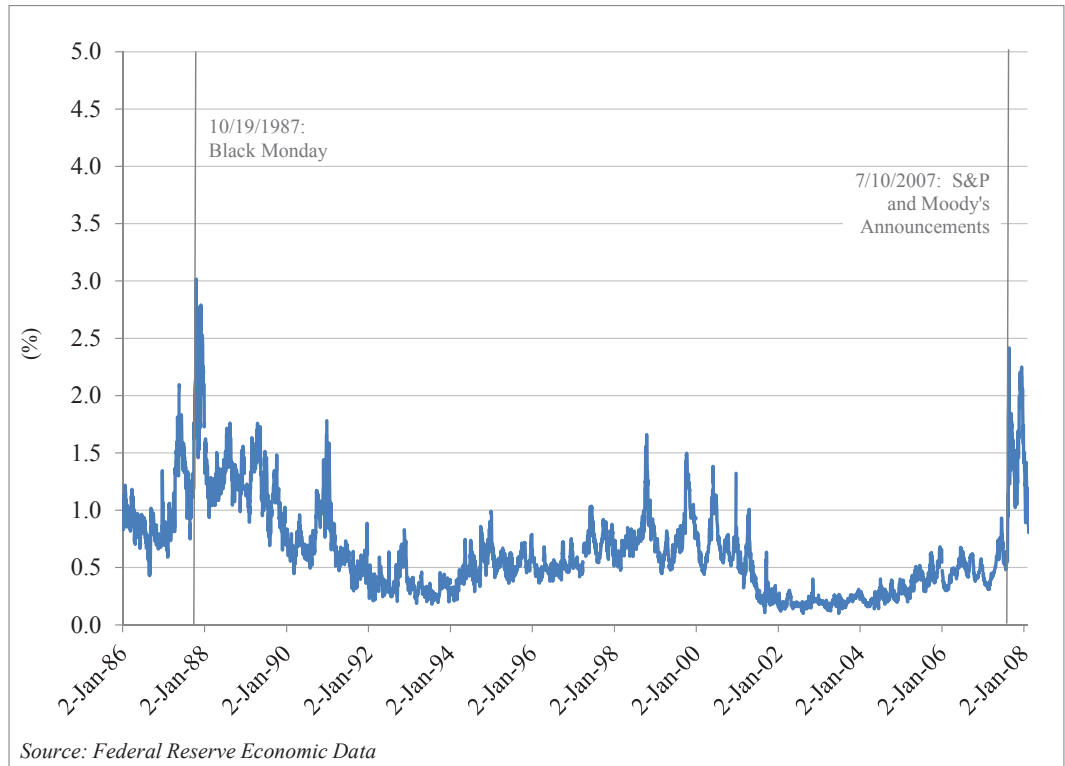


Figure 6. TED spreads over the 20 years prior to the subprime crisis of 2007

32. Many were expecting the housing market to slow.¹⁶ Housing prices simply could not sustain the same exponential growth from the late 1990's to 2006. Moreover, the relaxed lending standards that were helping to fuel housing prices were well-documented.¹⁷
33. The allegedly false ratings provided by the Defendants (and assumed false for purposes of my report) were supposed to incorporate and account for these potential stresses. Those ratings represented that subprime RMBS and the SIV notes would have more than tolerated such stresses. Instead, the misrated securities started buckling when these stresses began to materialize, due to their inferior quality.

¹⁶ E.g., see my report at fn. 40.

¹⁷ E.g., see Gorton, Gary. 2008. "The Panic of 2007," Prepared for the Federal Reserve Bank of Kansas City, Jackson Hole Conference, August, at pp. 5-7.

IV. THE GRENADIER REPORT'S MISCHARACTERIZATIONS OF MY ANALYSES

A. MISCHARACTERIZATIONS OF THE HEL RMBS REGRESSIONS

1. THE HEL RMBS REGRESSION IS NOT AN EVENT STUDY

34. The Grenadier report mischaracterizes the two regressions in my report as being two separate event studies, and is further critical of the second “Cheyne SIV-specific event study” as being tainted by use of weekly data and confounding events like Bear Stearns.¹⁸
35. However, there was only *one* event study in my report, not two as the Grenadier report suggests. This recognition alone renders many of the Grenadier report’s complaints misguided and irrelevant.¹⁹ An event study establishes a link between information flows and changes in value. However, the subprime assets held by Cheyne did not trade in an efficient market, nor did I assume so in my report. In addition, I did not assume in my report that the “marks” I used were, in any way, “prices” reflective of an efficient market.²⁰ I therefore examined the ABX index – instead of the Cheyne SIV marks themselves – to establish the causal link between the July 10th and 11th announcements and the market’s loss of confidence in the ratings (via changes in its assessment of default probabilities across the subprime market). The Grenadier report’s criticisms inexplicably rely (without support) on the mistaken assumption that Cheyne’s subprime assets trade in an efficient market.²¹
36. Unlike the Cheyne SIV portfolio assets (and the marks), the ABX is highly liquid and transparent, and was therefore used to frame quantitatively the question of whether the announcements had a material impact on perceptions of credit rating accuracy and default probabilities.

¹⁸ See the Grenadier report at par. 34-36.

¹⁹ E.g., see the Grenadier report at par. 28-47.

²⁰ I also understand that Justice Scheindlin has made a ruling on this issue in these proceedings, and has found the marks inefficient (see Opinion and Order in re: Abu Dhabi et al. v. Morgan Stanley, 08 Civ. 7508 (SAS), document 474, August 17, 2012, at pp. 77-78).

²¹ E.g., see the Grenadier report at par. 33, 43, and 93-94.

37. The only event study in my report was the ABX (first) regression in Table 4, which established a causal link between the realization by the market of the assumed misratings and the structural shift that occurred in the market's perception of probabilities of default – and the shift to a general loss of confidence in the ratings.
38. The second regression in my report (involving HEL RMBS returns based on Cheyne SIV's marks) should not be viewed in this way. As noted earlier, the second regression in my report established a further link in the causal chain – that the loss of confidence in the ratings explained most of the subsequent behavior of the HEL RMBS marks in the post- July 10th period.
39. The Grenadier report also appears to misunderstand the modeling approach of the event study itself and misinterprets the abnormal ABX return that is measured. To minimize the econometric burden placed on the reader, my report used a simple specification that allowed the core question regarding information flows – whether the announcements had material impact on perceived probabilities of default – to be answered. Specifically, I made use of the fact that different tranches would be hit differently by the unfolding problems in subprime if the announcements erased reliance on the ratings. That is, HEL RMBS securities with A ratings, even those not specifically mentioned in the downgrades, would be more likely to be hit than similar AA securities (even those not specifically mentioned in the downgrades), which in turn were more likely to be hit than similar securities with an AAA rating (as you reach up the waterfalls). So long as ratings were trusted/believed, the ratings were holding the structure of the ABX together with minimal perceived probability of defaults (see flat/constant section of figure) across and among all three (AAA, AA, and A) rating categories. The evidence from the event study is that the announcements changed investors' perceptions so that these indices no longer moved together as they did previous to the announcements.
40. An event study requires prices that are sufficiently responsive to information so that other confounding events can be excluded from the causal chain. Cheyne SIV's HEL RMBS assets are themselves highly illiquid and their marks are not market prices, making them poor candidates for event study methodology. In contrast, the

ABX indices are highly liquid, transparent, and supported by market makers, making them suitable for event studies.²² The event study contained in the first regression in Table 4 of my report supported the causal link that was qualitatively evident from the ABX graphs themselves – the revelation was statistically significant and precipitated a fracturing of the ABX relationships across the AAA, AA, and A rating categories that had been held together by a prior reliance on the ratings.

2. DROPS IN THE ABX EXPLAIN THE DROPS IN CHEYNE'S HEL RMBS PORTFOLIO

41. As noted earlier, the Grenadier report suggests that there is something inherently contradictory in the fact that the HEL RMBS regression coefficients on ABX terms are negative.²³ However, such statement incorrectly interprets the meaning of the regression results, replicated in Table 2 below.

Table 2. HEL RMBS regression results from my original report (see Table 5 of my report)

| Source | SS | df | MS | Number of obs | 101 |
|----------|------------|-----|-------------|---------------|---------|
| | | | | F(5, 95) | 25.65 |
| Model | 0.00422684 | 5 | 0.000845367 | Prob > F | 0.000 |
| Residual | 0.00313056 | 95 | 0.000032953 | R-squared | 0.5745 |
| | | | | Adj R-squared | 0.5521 |
| Total | 0.00735739 | 100 | 0.000073574 | Root MSE | 0.00574 |

| helret | Model Coef. | Std. Error | t | Prob> t | [95% Conf. Interval] |
|------------|-------------|------------|-------|----------|----------------------|
| abxret | -0.69712 | 0.0704862 | -9.89 | 0.000 | -0.8370528 -0.557187 |
| abxret2 | -16.11249 | 1.755928 | -9.18 | 0.000 | -19.59845 -12.62654 |
| rf_5yr | -0.0001104 | 0.0032705 | -0.03 | 0.973 | -0.0066031 0.0063823 |
| aaa_ccc | -0.0000368 | 0.0001316 | -0.28 | 0.780 | -0.0002981 0.0002245 |
| eventshort | -0.0112755 | 0.0041875 | -2.69 | 0.008 | -0.0195887 -0.002962 |
| _cons | 0.0082726 | 0.0397449 | 0.21 | 0.836 | -0.0706311 0.0871762 |

42. A plot of the estimated regression function (see Figure 7 below) shows that the graph is simply concave down. The Grenadier report misses the fact that due to the

²² See my report at par. 68-72, and 74.

²³ See the Grenadier report at par. 31.

inclusion of a squared term (abxret2 which is the square of the return in the ABX) this regression is a *non-linear* function of the ABX return, and as such one cannot simply extrapolate the direction of co-movement based on the signs of the coefficients alone. As Figure 4 demonstrates, negative coefficients are perfectly consistent with drops in the ABX and drops in Cheyne SIV's HEL RMBS marks in the post-July 10th period, something that would have been realized by a simple plot of the function.

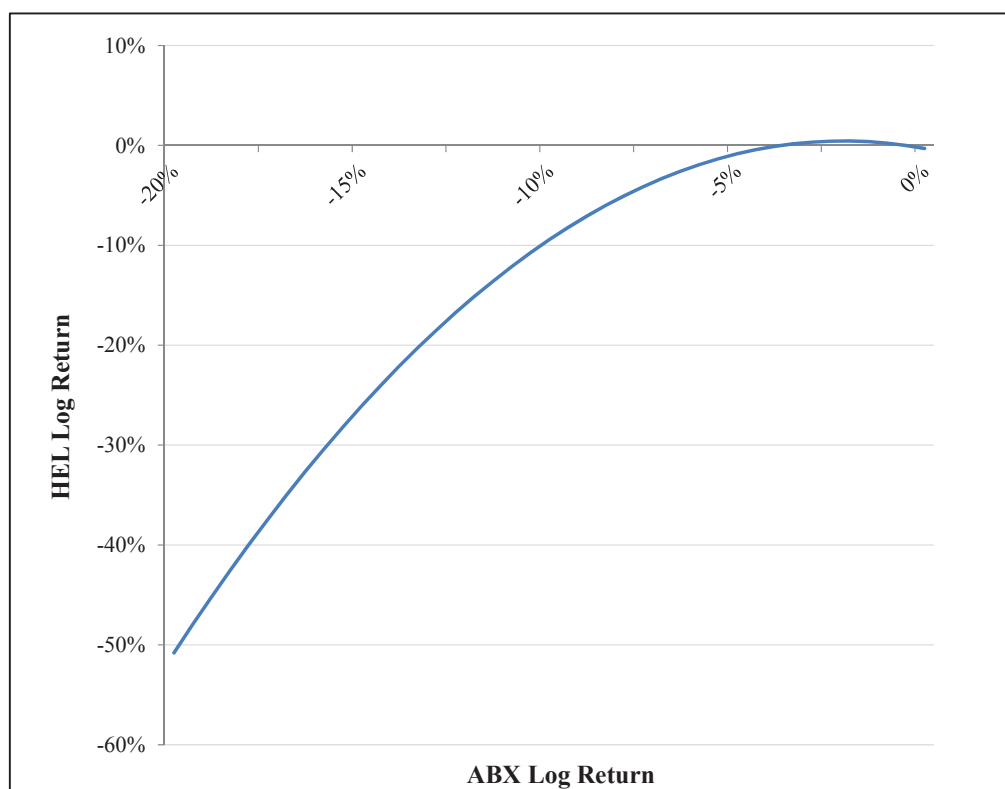


Figure 7. Estimated HEL RMBS regression model for negative ABX Returns²⁴

43. As demonstrated by the chart, a fall in the ABX nearly always predicts a larger fall in the HEL RMBS marks. Only for a very small range of values – small negative weekly returns in the ABX – does this estimated model predict negligibly positive changes in subprime RMBS. The regression estimates simply reflect the overall patterns of decline in Cheyne's subprime RMBS and the ABX after July 10th.

²⁴ Other regression variables fixed as at July 9, 2007.

44. Again, it is important to recognize that the relevant question is: What explains the general decline in Cheyne's subprime assets that led it to Enforcement – recognizing that the marks are *not prices* set in an efficient market. The HEL RMBS regression in my report clearly established that the overall decline in Cheyne SIV's subprime assets is best explained by the general decline in the ABX. Figure 12 of my report (see Figure 8 below), which was a graph of estimates from the regression and the actual marks, clearly indicates that the regression matches falls in the marks well. Combined with the event study results that suggest that the ABX declines reflected a loss of confidence in the ratings after revelation of the alleged misrepresentations by Defendants, these results further support a causal link between the Defendants' actions and the events that led Cheyne SIV into Enforcement.

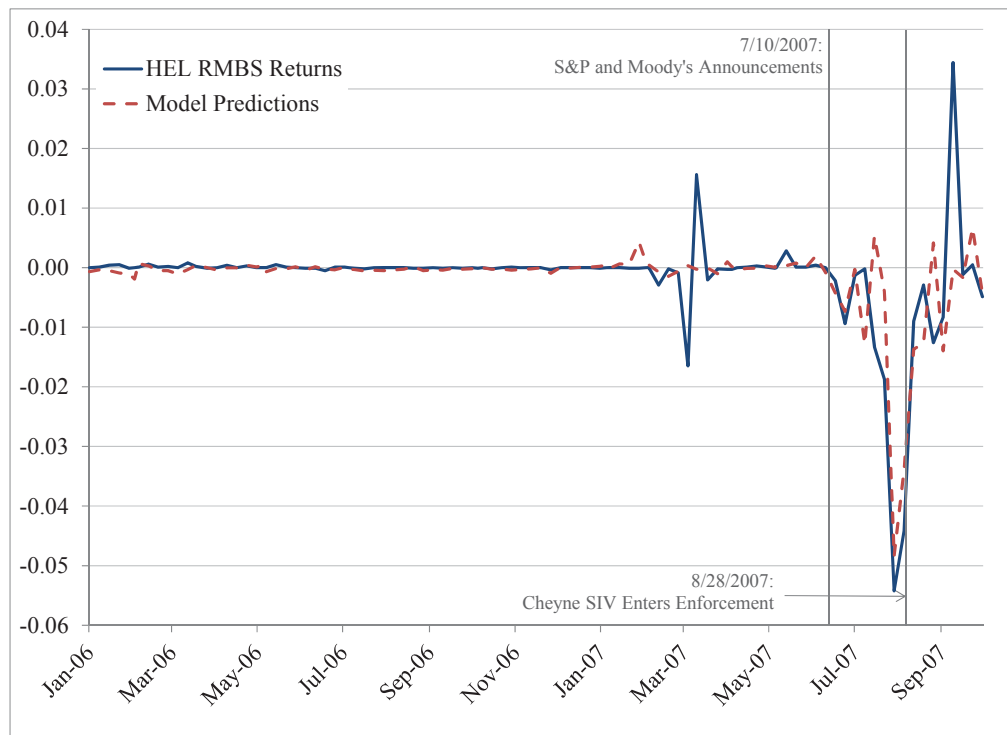


Figure 8. Actual returns of HEL RMBS versus model predictions (replicated from Figure 12 in my report)

3. AUGUST 24 AND AUGUST 31 ARE NOT OUTLIERS

45. The Grenadier report also suggests that the results in the second regression are driven by a couple of outliers, rather than by a genuine relationship between the ABX and HEL RMBS value.²⁵ This is a mischaracterization of the data. To understand why, one needs to recognize that (generally) the price of CDS is determined by comparing value across two components:²⁶

- (1) A Fixed payments component that is essentially deterministic (priced based on interest rates); and
- (2) A payment that occurs in an event of default (priced based on probability of default), which may or may not change across consecutive dates

46. When probability of default is non-changing (and/or negligible), the value of the CDS which comes from the second component described above will essentially remain fixed, so that changes in value are determined primarily by interest rate changes. When changes in the probability of default suddenly change and become predominant in importance – as they did after the July 10th and 11th announcements – prices will respond primarily to movements in those probabilities.²⁷ Thus, the impact of changes in probabilities of default (as proxied by the ABX) is only measurably relevant in the period after the announcements – and it is the relationship between these two variables *after* the revelation that is relevant to the analysis of causality.

47. The Grenadier report seeks to characterize two important data points as “outliers” by incorrectly placing them against the context of the entire pre-announcement period. A simple plot of the residuals shows that the dates in question are hardly atypical (see Figure 9 below). The claim that August 24th and August 31st are

²⁵ See the Grenadier report at par. 32. Note, the two data points identified in fn.75 of the Grenadier report are August 24, 2007 and August 31, 2007.

²⁶ E.g., see I. Fender and Martin Scheicher. 2009. “The Pricing of Subprime Mortgage Risk in Good Times and Bad Evidence from the ABX:HE Indices,” *European Central Bank Working Paper Series*, No. 1056, at pp. 10-12.

²⁷ On the HEL RMBS assets side, floating rate notes are not so sensitive to interest rate movements, and retain close to par value unless probability of default starts changing in non-negligible ways.

outliers is even less supportable if one focuses on the relevant period of post-July 10th.

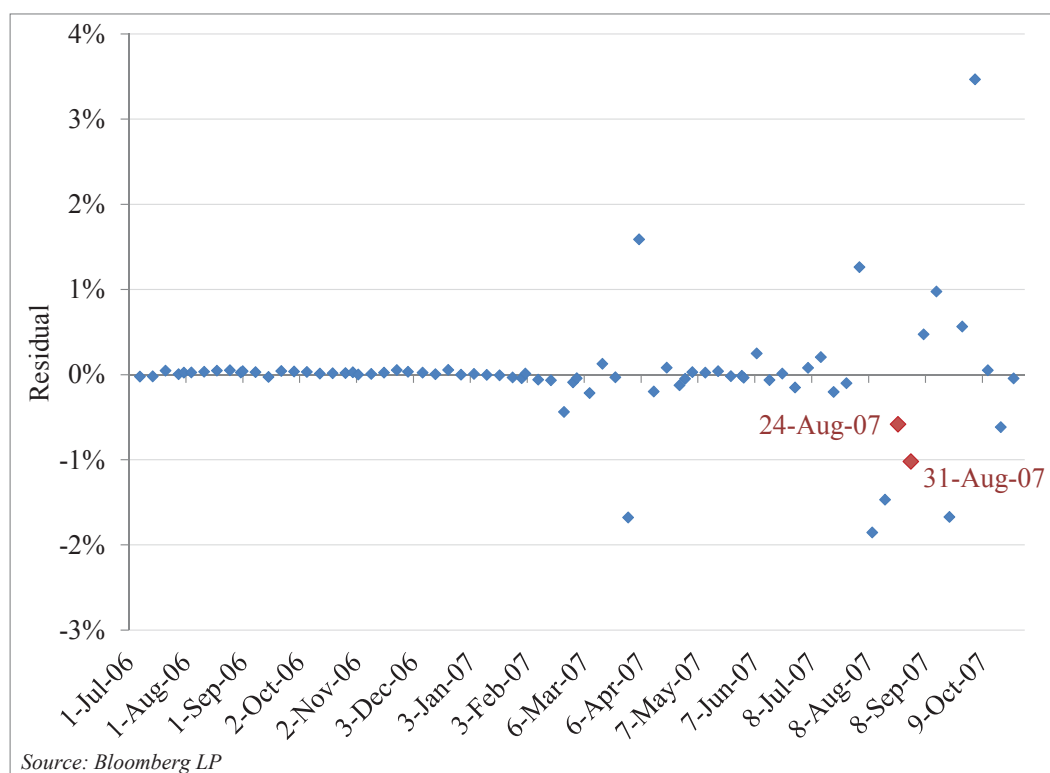


Figure 9. Plot of HEL RMBS regression model residuals

48. Characterizing these two particular data points as “outliers” is particularly misleading for two reasons. First, it is odd and unusual that the Grenadier report wishes to remove from analysis the two dates (August 24, 2007 and August 31, 2007) immediately around the key date of Enforcement for the Cheyne SIV. Second, removing the data points as the Grenadier report does is misleading because it removes important data from the period when the relationship is strongest – and doing so is diluted by including the large period where the relationship was expected to be less distinguishable (before July 10, 2007).
49. To cross-check my conclusions, I have been able to obtain additional data from Bloomberg on the bid prices of Cheyne SIV’s underlying subprime assets through Cheyne SIV’s liquidation in 2008 (and past that into 2010). As Figure 10 demonstrates, the additional data is consistent with the conclusions of my earlier analyses and reveals that the long-run decline of Cheyne SIV’s subprime assets

(HEL RMBS in the figure) indeed closely tracks the decline of the ABX AA:0601 index through Cheyne SIV's liquidation process (and beyond into 2010). In fact, the additional data clarifies that bid prices for Cheyne SIV's subprime assets typically responded to changes in the ABX with about one week lag (see Figure 10 below).²⁸

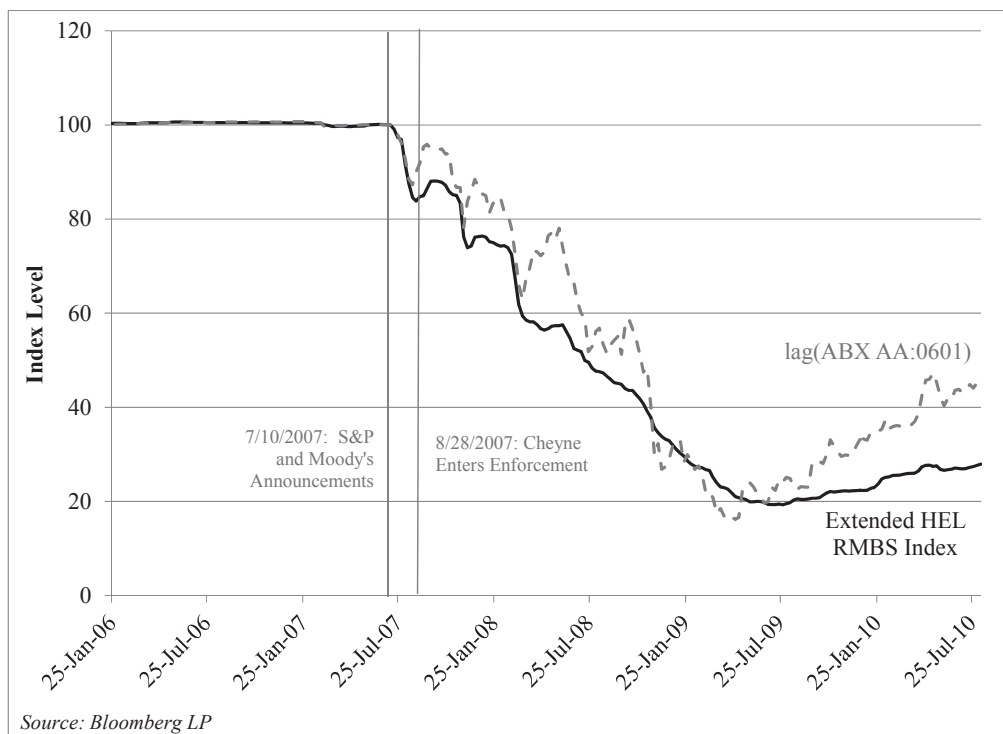


Figure 10. Lag of the ABX AA:0601 index against the extended index of Cheyne SIV's HEL RMBS using updated data obtained from Bloomberg

50. Table 3 below presents results from a similar model to that used in my report,²⁹ replacing ABX AA:0601 returns with their one-week lags (“lagabxret”) and excluding any quadratic ABX terms (e.g., “abxret2” in my previous analysis) or post-announcement dummy variables that apparently concerned the Grenadier report. The estimation period is from one year prior to the announcements through to the auction of Cheyne SIV's remaining assets (i.e., from July 9, 2006 to July 23, 2008).

²⁸ This is not unexpected given the nature of the subprime RMBS market and the general lack of efficiency of subprime bids, especially in this period.

²⁹ See my report at par. 78-86.

Table 3. Supplementary regression results using new extended Bloomberg data

| Source | SS | df | MS | | | |
|-----------|-------------|-----|------------|---------------|--------|----------------------|
| | | | | Number of obs | 104 | |
| | | | | F(5, 98) | 18.68 | |
| Model | 0.0121520 | 3 | 0.00405067 | Prob > F | 0.0000 | |
| Residual | 0.0216859 | 100 | 0.00021686 | R-squared | 0.3591 | |
| | | | | Adj R-squared | 0.3399 | |
| Total | 0.0338379 | 103 | 0.00032852 | Root MSE | 0.0147 | |
| helret | Model Coef. | | Std. Error | t | P> t | [95% Conf. Interval] |
| lagabxret | 0.302632 | | 0.051516 | 5.87 | 0.000 | 0.200425 0.404838 |
| rf_5yr | 0.618339 | | 0.344115 | 1.80 | 0.075 | -0.064376 1.301053 |
| aaa_ccc | -0.001411 | | 0.110445 | -0.01 | 0.990 | -0.220531 0.217709 |
| _cons | -0.030212 | | 0.020670 | -1.46 | 0.147 | -0.071221 0.010796 |

51. The coefficient on the lagged ABX term is positive, at 0.296, and highly statistically significant. As with my previous analysis, these results indicate that the ABX is an important factor driving the performance of Cheyne SIV's subprime assets – in fact, it is the only statistically significant factor in the relevant period.
52. Note also that in this linear specification, the positive coefficient more simply captures the fact that decline in the ABX is generally associated with decline in Cheyne SIV's subprime assets. Thus, the additional data also supports my previous conclusions that behavior of the ABX explains the majority of Cheyne SIV's decline through Enforcement, Receivership, and its ultimate liquidation on July 23, 2008.
53. For purposes of comparison, Table 4 below presents the results from running the same model I used in my report on the extended data.³⁰ The results are qualitatively the same as before, and together with my analysis in Table 3 above leave my previous conclusions unchanged.

³⁰ This uses an estimation window running between July 10, 2006 and July 23, 2008.

Table 4. Regression model from my prior report using new extended Bloomberg data

| Source | SS | df | MS | Number of obs | | |
|------------|-------------|-----|------------|---------------|-------|----------------------|
| | | | | F(5, 98) | | 9.01 |
| Model | 0.0106584 | 5 | 0.00213168 | Prob > F | | 0.0000 |
| Residual | 0.0231795 | 98 | 0.00023653 | R-squared | | 0.3150 |
| | | | | Adj R-squared | | 0.2800 |
| Total | 0.0338379 | 103 | 0.00032852 | Root MSE | | 0.0154 |
| helret | Model Coef. | | Std. Error | t | P> t | [95% Conf. Interval] |
| abxret | -0.098639 | | 0.065457 | -1.51 | 0.135 | -0.228537 0.031259 |
| abxret2 | -4.364553 | | 0.915624 | -4.77 | 0.000 | -6.181578 -2.547528 |
| rf_5yr | 0.073543 | | 0.368264 | 0.20 | 0.842 | -0.657265 0.804352 |
| aaa_ccc | 0.087742 | | 0.114556 | 0.77 | 0.446 | -0.139591 0.315075 |
| eventshort | 0.000767 | | 0.011171 | 0.07 | 0.945 | -0.021401 0.022936 |
| _cons | -0.000552 | | 0.021775 | -0.03 | 0.980 | -0.043764 0.042660 |

B. THE CAUSAL LINK BETWEEN THE ALLEGED MISREPRESENTATIONS AND PLAINTIFFS' LOSSES

54. The Grenadier report incorrectly asserts that my analyses fail to establish a causal link between the alleged misrating on the Cheyne SIV notes and Plaintiffs' losses. However, my report documents a direct causal link between the revelation of the alleged misrepresentations and the deterioration of Cheyne's subprime assets that led Cheyne into Enforcement. It was the alleged misrepresentations surrounding the quality of Cheyne's notes that made them vulnerable to the Enforcement event. As a result, Cheyne SIV entered Receivership and became insolvent soon after – a process that ultimately led to Plaintiffs' losses.
55. The Grenadier report fails to recognize a key point: establishing that Defendants' alleged misrepresentations were the proximate cause of Cheyne SIV entering Enforcement and Receivership is sufficient (from an economic perspective) to establish a proximate causal link between the alleged misrepresentations and the losses Plaintiffs suffered at liquidation. As noted in my report, Cheyne SIV entered a prescribed orderly liquidation process when it fell into Receivership.³¹ This process was complex and would reasonably be expected to take time – 11 months was not outside the realm of reasonable expectations. Defendants understood, for

³¹ E.g., see Sections V.E.4 and VI. of my report.

example, that in the event of a "wind down" of the vehicle "some of the SIV's assets will require due diligence by potential purchasers, thereby increasing the sale period for such assets."³² Moreover, by entering Receivership Plaintiffs were locked into Cheyne SIV for the duration of the liquidation process. Enforcement not only limits the SIV's operations, but signals its ultimate demise. S&P's Structured Investment Criteria publication notes that "[o]nce a SIV enters into enforcement mode, it has reached the point of no return."³³ The ratings of the Cheyne SIV senior notes are premised on expected repayment during the enforcement period. In effect, the ratings indicate the SIV's ability to protect noteholders against market risk during wind-down.³⁴

56. Defendants' alleged misrepresentations forced Plaintiffs to bear any and all additional risks that might affect the value of Cheyne SIV during the liquidation process. In other words, economic causality flows directly through the event that Cheyne SIV enters Receivership to any losses that Plaintiffs ultimately suffered from the reasonable resolution of that process. Thus, the results of my analyses do establish a proximate causal link between the Defendants' alleged misrepresentations and the Plaintiffs' losses in this case.

V. THE GRENADIER REPORT'S DAMAGE ESTIMATES ARE INAPPROPRIATE

57. The Grenadier report provides several alternative damage estimates assuming loss causation and liability. These estimates rely on methodologies that are inappropriate for calculation of Plaintiffs' damages and, consequently, do not accurately reflect Plaintiffs' losses. I limit my discussion to the Grenadier report's "but-for" damage analysis and his criticisms of my out-of-pocket loss calculation.
58. The Grenadier report alleges that even if the Plaintiffs' losses "could reasonably be attributed to the allegedly false ratings of the Cheyne SIV notes," the appropriate

³² See Exhibit 281; see also 3/3/11 Inglis Depo Tr. at 162-63.

³³ See Exhibit 281.

³⁴ See Exhibit 281.

damages analysis should compare the actual performance of the Plaintiffs' investments to "but-for" investments in a similar portfolio.³⁵ This approach is ill-founded. The Grenadier report posits this as an alternative damage measure because it incorrectly claims that my estimate relies on an assumption that Plaintiffs would have invested in cash-like securities.³⁶ Contrary to the claim made in the Grenadier report, my estimate does not rely on an assumption that the Plaintiffs would have invested in cash-like securities. The out-of-pocket measure of losses I employ does not rely on "but-for" analyses at all. It is the difference between the amount paid and the value of the security received plus pre-judgment interest.

59. Furthermore, even if one were to put forward a "but-for" analysis to estimate damages, the assumptions underlying the calculations in the Grenadier report have several flaws. Most notably, the assets in the "but-for" portfolio of the Grenadier report suffer from the same misrating problems as the Cheyne SIV notes and Cheyne's subprime assets. These "but-for" assets are not consistent with assets that were true A1/P1, AAA or A – the ratings assigned to the SIV Commercial Paper, Senior Notes, and Capital Notes purchased by the Plaintiffs.
60. The calculations presented in the Grenadier report are based on the assumption that the Plaintiffs would have invested in a portfolio of ABS with a similar concentration in HEL RMBS and a similar degree of leverage as the Cheyne SIV. The Grenadier report creates a "but-for" portfolio that simply replicates the assets and asset mix in the Cheyne SIV portfolio with indices reflecting similar asset-types.³⁷ Thus, the securities that comprise the "but-for" portfolio in the Grenadier report suffer from the same misrating problem as the HELs in the Cheyne portfolio. Concealment of risk is endemic to the investment contemplated in the Grenadier report, and as such the "but-for" portfolio does not reflect the Plaintiffs' true investment objectives. The Grenadier report's "but-for" portfolio does not comport with an investment objective of true "AAA" securities by the senior noteholder

³⁵ See the Grenadier report at par. 105.

³⁶ See the Grenadier report at par. 105.

³⁷ See the Grenadier report at par. 106.

plaintiffs or the “A” investment objective for the Cheyne SIV’s capital noteholders. These faulty assumptions render the Grenadier report’s “but-for” damages estimates wholly unreliable.

61. The Grenadier report also presents damages estimates that purportedly correct the out-of-pocket calculations provided in my report.³⁸ The Grenadier report’s damages estimates are based on unsubstantiated and inappropriate assumptions. Specifically, the Grenadier report alleges that Plaintiffs’ valuations of the Gryphon notes ranged from 67% to 80% of the senior note obligations.³⁹ Using these estimates to value Cheyne SIV’s notes in July 2008 for those Plaintiffs who took the Gryphon notes is inconsistent with sound economic principles and is inconsistent with contemporaneous evidence. The auction for Cheyne SIV’s assets created a market price for these assets. This in turn yielded a market price for the Cheyne Senior notes. Thus, the correct approximation of the value of the Gryphon notes at the time the Plaintiffs acquired them is the market value of the Gryphon notes as demonstrated by the auction, 44.47% of the outstanding senior obligations. This is the value I used in my damages calculations.⁴⁰ The arm’s length market price set by the auction is the correct economic measure of value – the alternative valuations suggested by the Grenadier report are not.
62. Moreover, the workpapers for the Grenadier report do not demonstrate that the Plaintiffs valued the Gryphon notes between 67% and 80% of the senior note obligations in July 2008. In fact, contemporaneous documents suggest that *at best*, optimistic investors might have expected the value of the Gryphon notes to reach 65% of the senior note obligation.⁴¹

³⁸ See the Grenadier report at par. 110.

³⁹ See the Grenadier report, note 4 of Exhibit 20.

⁴⁰ See my report at par. 100.

⁴¹ See, for example, Citibank Global Market’s August 2008 report on SIVs (Z0989212), and internal Moody’s email chain (MDYS ADCB 105841-46).

63. The Grenadier report also claims that my out-of-pocket calculation is overstated because I did not deduct the interest payments received by Plaintiffs.⁴² This claim is incorrect. The out-of-pocket measure of damages is a measure of losses – the difference between the amounts paid less the value of the thing received.⁴³ The interest payments were part of the performance of the security purchased. Hence, the interest payments should not be deducted from damages.
64. Finally, the Grenadier report criticizes my inclusion of Plaintiffs whose status was under consideration by the court.⁴⁴ At this time, the claims of SEI Investments Co. and Butterfield have been reinstated, while those of Commerzbank – DAF have not.⁴⁵ Table 5 below presents an updated version of Table 6 in my report recognizing these developments.

⁴² See Grenadier report at par. 110-111.

⁴³ See, for example, Mullaney, T.J. 1977. Theories of measuring damages in security cases and the effects of damages on liability. *Fordham Law Review* 46: pg. 281.

⁴⁴ See Grenadier report at par. 111.

⁴⁵ Abu Dhabi et. al v. Morgan Stanley et al., 1:08-cv-07508-SAS-DCF, Order and Opinion issued November 7, 2012.

Table 5. Revised summary of damages based on reinstatement of SEI Investment Co. and Butterfield

| | Plaintiff [a] | Unrecovered Purchase Price [b] | 9% Statutory Pre-Judgment Interest [c] | Post-Default Interest [d] | Damages [e] |
|------|--|--------------------------------------|--|---------------------------------|----------------|
| [1] | Abu Dhabi Commercial Bank | 10,000,000 | 4,500,512 | 0 | 14,500,512 |
| [2] | Bank Hapoalim | 10,000,000 | 4,500,512 | 0 | 14,500,512 |
| [3] | Bank SinoPac | 4,290,000 | 1,930,720 | 0 | 6,220,720 |
| [4] | Butterfield | 36,380,375 | 20,256,920 | 714,247 | 55,923,048 |
| [5] | Commerzbank | 60,000,000 | 27,003,072 | 0 | 87,003,072 |
| [6] | Deutsche Postbank | 57,500,000 | 25,877,944 | 0 | 83,377,944 |
| [7] | Florida State Board of Administration | 18,608,906 | 10,329,552 | 261,580 | 28,676,878 |
| [8] | Gulf International Bank | 15,000,000 | 6,750,768 | 0 | 21,750,768 |
| [9] | King County, Washington | 18,173,597 | 10,078,296 | 1,141,409 | 27,110,485 |
| [10] | National Agricultural Cooperative Federation | 10,000,000 | 4,500,512 | 0 | 14,500,512 |
| [11] | Global Investment Services Ltd. (New Zealand) | 3,690,000 | 1,660,689 | 0 | 5,350,689 |
| [12] | Pennsylvania Public School Employee Retirement System | 3,821,555 | 2,104,325 | 171,395 | 5,754,486 |
| [13] | SEI Investments Co | 105,693,060 | 58,553,638 | 1,441,328 | 162,805,370 |
| [14] | SEI Straegies LLC | 37,768,685 | 20,876,247 | 521,693 | 58,123,239 |
| [15] | SFT Collective Investment Fund | 37,522,921 | 20,777,715 | 524,036 | 57,776,601 |
| | Total Damages for All Plaintiffs | 428,449,100 | 219,701,424 | 4,775,688 | 643,374,835 |

Source: Workpaper MG-1.



Michael A. Goldstein

November 7, 2012

Date